May 20, 1938

Dear Raj Chandra,

I am very sorry to hear of Professor Mahalanobis's illness, and hope that he is now quite recovered. I am sending to you, however, rather than to him, the proofs of the book on Estimates with a few verbal corrections towards the end, and have checked the bibliography. I also send a brief introduction, as you suggested.

I did not need the solution of the 3,57 problem, as I know your method of obtaining it. Perhaps Mahalanobis misunderstood me when I was enquiring about the exact notation used in your solution of the D^2 distribution. I fancy the tests of significance for collinearity, coplanarity, etc come out quite simply, though one has to solve an algebraic equation of higher degree than the first. This should necessarily include the question of significant differences between different discriminent functions, or between different directions in generalised space, but there is one form of question which I do not yet see the solution of, namely, that in any such problem there must exist a best discriminant function corresponding with the infinite populations, available for sampling, from

which any estimated function will differ somewhat. The difference may, I think, be rationally measured by something like (1 - r), where r is the correlation within samples between the true and the estimated linear functions. I should like to be able to set a lower 5% point of the distribution of r. The solution must be intimately related to yours, but I do not see actually how.

Please give my remembrances to Mahalanobis and my wishes for his speedy recovery.

Yours sincerely,

Proof pages and introduction